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PATENT

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| **In re U.S. Patent Application of:** | ) | |
| | ) | |
| **Tai-Her YANG** | ) | **Group Art Unit: 3681** |
| | ) | |
| **Serial Number: 09/580,968** | ) | **Examiner: D. Wright** |
| | ) | |
| **Filed: May 30, 2000** | ) | |

**For: Distributed Differential Coupling Combined Power System**

**REQUEST FOR RECONSIDERATION**



Honorable Commissioner For Patents
Washington, D.C. 20231

Sir:

This paper is in response to the Official Action dated May 29, 2002.

Reconsideration of the application is respectfully requested on the grounds that the drawing amendments included with the original application are fully supported by the specification of U.S. Patent No. 5,547,433, on which the present application for reissue is based. As a result, the drawing amendments do not constitute "new matter."

Attached is a copy of the amended Fig. 1, labeling the various objected-to "details" according to their descriptions in the specification of the '433 patent. Figs. 2-8 are identical to Fig. 1 except for the variations described in the last paragraph of col. 8 and in col. 9 of the original specification, and are covered by the description of Fig. 1.

The motor armature and field generating structure are described in **col. 4, lines 17-27** of the '433 patent, as follows:

> *. . .For the case of AC power generation output functions, the electromagnetic coupling device M101 is employed as an electrical machine with AC power generating functions and made up of a* ***permanent magnet*** *or* ***winding excited,*** *variable frequency field type of electrical device, or a brushed alternator type of electrical device,* ***armature winding being commonly installed with the conducting rings for AC output*** and ***with the commutators for DC input/output,***

> *as a result of which the AC output can be a variable frequency output or a constant frequency output depending on the engine constant speed control.*

It can be seen from this passage that the electro-magnetic components of the electromagnetic coupling device M101 described in the specification of the '433 patent include:

1. a permanent magnet or field winding;
2. an armature;
3. AC coupling rings for the armature; and
4. a DC commutator,

all of which are depicted in entirely conventional fashion in Fig. 1, with no additional details that might constitute "new matter."

Furthermore, the remaining "details" of coupling device M101, namely the connections to the remaining elements of the system, are also described in the original specification and depicted in a way that does not constitute "new matter." In particular, in addition to the motor/generator parts described above, the depiction of coupling device M101 includes bearings for the shaft, which are again depicted in entirely conventional fashion, and the **double bearing structure** coupled to clutch CL101 at the left side of M101.

The double bearing structure is required by the specification of the '433 patent because, as explained in **col. 3, lines 39-41**, the electromagnetic coupling device M101 is:

> *. . .made up of a* **rotational** *field generating structure and a rotor. . .,*

*i.e.*, both the rotor and the field generating structure are mounted for rotation. Without the double bearing structure depicted in the drawings, the field generating structure would not be able to rotate. Again, the manner in which the double bearings are depicted are entirely conventional, and all of the corresponding structural details follow directly from, and are necessary to, the depiction of the field generating structure as rotating. If this were not the case, there would be no possible use for clutch 101, which is:

> *. . .controlled by the central controller CCU101 and installed between the rotational field generating structure and the rotor. . ..*

Finally, the respective connections to shaft S101 and the rear gearbox GB101 are described in **col. 3, lines 40-44**, as follows:

> *. . .is made up of a rotational field generating structure and a rotor, and. . .the rotational field and the rotor are respectively coupled with the transmission middle shaft S101 and the input shaft of a rear differential gear box GB101. . ..*

Fig. 1 in the original patent did not include a clutch CL101 or rotational field generating structure because Fig. 1 of the original patent was intended to be filed in a copending application, while amended Fig. 1 was originally filed in the copending application. However, the specification of the present patent clearly describes clutch CL101, a **rotational** field generating structure, a field winding or permanent magnet on the field generating structure, a rotor, a DC commutator, and AC conducting rings.

Because these elements are described in the specification of the patent, and the drawings have been amended to show these elements and nothing more, all of the other details of Fig. 1 being identical to those of the originally filed drawings, it is respectfully submitted that the drawing amendments do not constitute new matter, and therefore entry of the drawings and passage of the application to issue is respectfully requested.

Respectfully submitted,

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Date: July 29, 2002

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PATENT

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: TAI-HER YANG
SERIAL NO.: 09/580,968 GROUP ART UNIT: 3681
FILED: May 30, 2000 EXAMINER: D. Wright
FOR: DISTRIBUTED DIFFERENTIAL COUPLING COMBINED POWER SYSTEM ATTY. REFERENCE: YANG3118/EM/BEU



THE COMMISSIONER FOR PATENTS
Washington, D.C. 20231

*Sir:*

Transmitted herewith is a communication/amendment in the above-identified application.

☒ Small entity status of this application under *37 CFR 1.9* and *1.27* has been established by a verified statement previously submitted.

☐ A verified statement to establish small entity status under *37 CFR 1.9* and *1.27* is enclosed.

☒ No additional fee is required.

The fee, if any, has been calculated as shown below:

| Fee Basis | Number of Claims After Amendment | Highest Number Previously Paid For | Extra Claims | Small Entity | Full Fee |
|---|---|---|---|---|---|
| Total Claims | | - [1] | = [3] | × $ 9 = | × $ 18 = |
| Independent Claims | | - [2] | = [3] | × $ 40 = | × $ 80 = |
| ☐ First Presentation of Proper Multiple Dependent Claim | | | | + $135 = | + $270 = |
| | | | TOTAL | | |

[1] If less than 20 enter **20**. [2] If less than 3 enter **3**. [3] If less than 0 enter **0**.

☐ Please charge my **Deposit Account Number 02-0200** in the amount of **$**_____. A duplicate copy of this sheet is attached.

☐ A check in the amount of **$**_____ is attached.

☒ The Commissioner is hereby authorized to charge any additional fees associated with this communication, including fees due under *37 CFR 1.16* and *37 CFR 1.17* or credit any overpayment to **Deposit Account Number 02-0200**. A duplicate copy of this sheet is attached.

☒ Also enclosed is/are: Copy of amended drawing showing support in original specification



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DATE: July 29, 2002

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